

REMARKS

Summary of Office Action

Claims 11-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Molsen et al. (US Pat. 6,122,024) in view of Sekine et al. (US Pat. 6,313,874).

Claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Molsen et al. (US Pat. 6,122,024) in view of Sekine et al. (US Pat. 6,313,874) and further in view of Hiji et al. (US Pat. 5,872,609).

Summary of Amendment

Claim 11 was amended for clarity. Claim 23 has been added. No new matter has been added. Claims 11-18, 22, and 23 remain pending for further consideration.

All Claims Comply Under §103

Claims 11-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Molsen et al. (US Pat. 6,122,024) in view of Sekine et al. (US Pat. 6,313,874) and claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Molsen et al. (US Pat. 6,122,024) in view of Sekine et al. (US Pat. 6,313,874) and further in view of Hiji et al. (US Pat. 5,872,609).

These rejections are respectfully traversed for the following reasons.

Independent claim 11 has been amended only for clarity issues. No new matter has been added. As amended, independent claim 11 recites, in part, “a liquid crystal layer...having a photo-reactant material and a liquid crystal material, wherein the photo-reactant material *and* the liquid crystal material *form a polymer network.*” (Emphasis added.) Thus, claim 11 requires that the “photo-reactant material” *and* the “liquid crystal material” form a “polymer network.”

In contrast, newly cited Molsen et al. teaches that “[b]ecause the helical director profile is produced by the *helical polymer network alone*, two helical polymer network layers of opposite handedness and a *common liquid crystal* may be provided in a single cell (col. 4, lns. 5-8; emphasis added).” In another words, it appears Molsen et al. teaches that the polymer network is made up of *only the precursor material* and does not include the liquid crystal material as part of the polymer network.

Indeed, in FIG. 1, for example, Molsen et al. shows that the liquid crystal material 8 (indicated by short lines) is disposed *between* the polymer network 9 (indicated by the long lines). (See also col. 5, lns. 2-7.) FIG. 2 more clearly shows that the liquid crystal material 8 is *not* part of the polymer network. FIG. 2 shows the liquid crystal material 8 in a vertically aligned state, but there is no change in the helical formation of the polymer network 9. Therefore, Molsen et al., fails to teach or suggest that “the photo-reactant material *and* the liquid crystal material *form a polymer network*” as recited in independent claim 11. Sekine et al. does not cure this deficiency as Sekine et al. was only relied upon to show a seal between the first and second substrate. Hence, for at least the reasons stated above Molsen et al. and Sekine et al., taken individually or in combination, fail to teach or suggest the invention as recited in independent claim 11, and therefore claim 11 complies with 35 U.S.C. §103(a). Moreover, since claims 12-18 depend from and incorporate all of the recited features of claim 11, claims 12-18 comply with section §103(a), for at least the same reasons for which claim 11 complies with §103(a).

As to claim 22, claim 22 depends from independent claim 11 and Hiji et al. does not cure

the deficiencies of Molesen et al. and Sekine et al. noted above as Hiji et al. was only relied upon to show liquid crystals in uncured anisotropic gel. Hence, Molsen et al., Sekine et al., and Hiji et al., taken individually or in combination, fail to teach or suggest the invention as recited in independent claim 11, and accordingly, with the invention as recited in dependent claim 22.

New Claim

New claim 23 depends from now allowable independent claim 11 and thus is allowable at least for the same reasons discussed above for which claim 11 is allowable. Furthermore, none of the art of record, taken individually or in combination, teaches or suggests “a first sealant along the periphery of one of the first and second substrates, and a second sealant along the periphery of the first sealant, thereby forming a double sealant” as recited in claim 23. Hence, claim 23 is also allowable over the art of record.

CONCLUSION

In view of the foregoing, reconsideration and timely allowance of the pending claims are respectfully requested. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants’ undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: July 18, 2005

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